

REMARKS

Claims 1, 2, and 4-10 are pending in the application, with Claims 1, 6, 9, and 10 being independent. In this Amendment, Claim 3 has been cancelled, Claims 1 and 4 have been amended, and Claims 6-10 have been newly added.

In view of the amendments above and the remarks below, Applicant respectfully requests reconsideration and allowance of the present application.

In the Office Action, the Examiner objected to the title as not descriptive of the invention. Applicant has presented a new title in the Substitute Specification being filed concurrently herewith. Applicant submits that the new title is clearly indicative of the claimed invention.

In addition to amending the title, the Substitute Specification includes changes to address minor grammatical and typographical informalities noted during a review of the specification. No new matter has been added.

Applicant notes with appreciation the Examiner's indication in the Office Action that dependent Claims 2-4 would be allowable if rewritten in independent form. Because Applicant believes their base claim (Claim 1) is patentable for the reasons discussed below, these claims have not been rewritten in independent form at this time.

Also in the Office Action, Claims 1 and 5 were rejected under 35 U.S.C. § 102(e) over U.S. Patent No. 6,518,999 (Miyamoto).

Without conceding the propriety of the rejection, and to advance prosecution, Applicant has amended independent Claim 1 to even more clearly recite its patentable features. At least as amended, Applicant submits that Claim 1 is patentably distinguishable from Miyamoto.

Specifically, independent Claim 1 is directed to an image pickup apparatus including an image pickup element, a memory, a signal processing circuit, and a memory control circuit. The memory stores an image obtained by the image pickup element. The

signal processing circuit is adapted to effect predetermined signal processing on an image read out of a first area of the memory. The memory control circuit is adapted to, in a mode of continuously picking up still images, carry out in parallel a writing operation of writing an image, obtained by the image pickup element, into the first area of the memory and a writing operation of writing the image, subjected to the predetermined signal processing by the signal processing circuit, into a second area of the memory.

An example of the operation of the memory control circuit of the image pickup apparatus can be understood with reference to Figures 11 and 13 of Applicants' invention, illustrating the timing of photographing processing and development compression processing, respectively.

As amended, independent Claim 1 includes a feature similar to that of now-cancelled Claim 3 (a claim which the Examiner deemed allowable), in which the memory control circuit carries out a writing operation of writing the image, subjected to the predetermined signal processing by the signal processing circuit, into a second area of the memory in parallel with a writing operation of writing an image, obtained by the image pickup element into the first area of the memory.

Applicant submits that Miyamoto does not teach or suggest the features of Applicant's invention recited in Claim 1. Miyamoto is directed to an electronic still camera operable in a continuous shooting mode. Miyamoto discloses shortening a recording processing time of picked up images to increase the continuous photographing speed. To shorten the recording processing time, Miyamoto discloses, inter alia, a method for "thinning out" the image data on a frame basis in which an image frame that is not much different from the previously stored image frame is not stored in the memory. As explained in Miyamoto at column 5, line 58 through column 6, line 65, with reference to Figures 6-8, the method involves comparing a currently stored image frame with a previously stored image frame. When little difference is detected between the image

frames, the next picked up image frame is overwritten into the sub-area of memory 6 that held the currently stored image frame. Thus, Miyamoto discloses a reading operation of a currently stored image performed in parallel with the writing operation of a currently picked up image, while performing the comparison processing. However, Applicant submits that Miyamoto does not teach or suggest a writing operation of writing an image signal subjected to the comparison processing into the memory. Accordingly, Applicant submits that Miyamoto does not teach or suggest the image pickup apparatus of Claim 1 including the recited features of the memory control circuit.

Accordingly, Applicant submits that independent Claim 1 is patentably distinguishable from Miyamoto.

In addition, Applicant submits that dependent Claims 2, 4, and 5 are patentably distinguishable from Miyamoto for at least the reasons discussed above for Claim 1. In addition, Applicant submits that these dependent claims recite additional features further distinguishing them from the cited art, and respectfully requests individual consideration of each dependent claim.

Applicant has added new Claims 6-10 to more fully claim the scope of Applicant's invention. Specifically, newly added independent Claim 6 is directed to an image pickup apparatus including an image pickup element, a memory, an image compression circuit, and a memory control circuit. The memory stores an image obtained by the image pickup element. The image compression circuit is adapted to compress an image read out of a first area of the memory. The memory control circuit is adapted to, in a mode of continuously picking up still images, carry out in parallel a writing operation of writing an image obtained by the image pickup element, into the first area of the memory and a readout operation of reading an image already stored in the first area of the memory to be compressed by the image compression circuit.

Claims 7 and 8 depend from Claim 6. Claim 7 recites that the memory control circuit of the image pickup apparatus further carries out a writing operation of writing a compressed image in a second area of the memory in parallel with the writing operation and the readout operation. Claim 8 recites that the memory control circuit further carries out a readout operation of reading an image stored in a second area of the memory in parallel with the writing operation and the readout operation, to record the image in a recording medium.

Claim 9 relates to a control method of an image pickup apparatus having image pickup element, a memory, and a signal processing circuit. The method includes a first writing step of writing an image, obtained by the image pickup element, into a first area of the memory. The method of Claim 9 also includes a reading step of reading an image already stored in the first area of the memory. A signal processing step in Claim 9 performs predetermined signal processing on the image read out of the first area of the memory by the reading step. In a second writing step of the method of Claim 9, the image subjected to the predetermined signal processing in the signal processing step is written into a second area of the memory. This second writing step is performed in parallel with the first writing step.

Claim 10 also relates to a control method of an image pickup apparatus having an image pickup element, a memory, and an image compression circuit. The method includes a writing step of writing an image, obtained by the image pickup element, into a first area of the memory. In a reading step of the method of Claim 10, an image already stored in the first area of the memory is read, and this step is performed in parallel with the writing step. In an image compression step of the method of Claim 10, the image read out of the first area of the memory in the reading step is compressed.

Applicant submits that the newly added claims are patentably distinguishable from Miyamoto following the reasoning discussed above for the amended

claims, and are in condition for allowance. Accordingly, Applicant respectfully requests favorable consideration of the newly added claims.

In view of the foregoing, Applicant submits that the application is in condition for allowance. Favorable reconsideration and early passage to issue are respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C., office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address below.

Respectfully submitted,

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